

SCIENCE

VOL. 93

FRIDAY, MAY 23, 1941

No. 2421

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SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. MCKEEN CATTELL and published every Friday by

THE SCIENCE PRESS

Lancaster, Pa. Garrison, N. Y.

New York City: Grand Central Terminal

Annual Subscription, \$6.00 Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary in the Smithsonian Institution Building, Washington, D. C.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

PRELIMINARY ANNOUNCEMENT OF THE DURHAM, N. H., MEETING

By Dr. F. R. MOULTON

PERMANENT SECRETARY

FROM June 23 to June 28, inclusive, the association will hold at Durham, N. H., the first of its two meetings this summer. The Durham meeting will be held in connection with the celebration of the seventy-fifth anniversary of the founding of the University of New Hampshire. The Chicago meeting, from September 22 to September 27, will be held in connection with the celebration of the fiftieth anniversary of the founding of the University of Chicago. These meetings suggest the question whether the association might not advantageously hold its summer meetings often in connection with special celebrations of scientific and cultural institutions and organizations.

Only once before since its founding ninety-three

years ago has the association met in New Hampshire. On the invitation of Dartmouth College, a summer meeting was held at Hanover, N. H., from June 29 to July 3, 1908. At that time the membership of the association was about 5,500; it now exceeds 21,000. Only 25 scientific papers were presented at the Hanover meeting, 16 in physics and nine in geology, in addition to two public addresses, one on "The Spoilation of Niagara," by Professor J. W. Spencer, and the other on "The American Bison," by Mr. T. S. Palmer. At the coming meeting at least 35 sessions will be held for the presentation of scientific papers in addition to a considerable number of field trips by the geologists, the botanical societies, the meteorologists and the

foresters. At least 26 sections and societies will participate in the meeting. The world of science moves rapidly forward in spite of wars and rumors of wars.

DURHAM, N. H.

Durham, at which the meeting will be held, is an attractive New England university town in the southeastern part of New Hampshire only 15 miles from the Atlantic coast and 62 miles from Boston, from which it may be reached by the Boston and Maine Railroad. It is accessible from every direction by excellent roads. Portsmouth, only 12 miles away on a landlocked harbor, is one of our principal naval bases on the North Atlantic coast. From Portsmouth a ferry may be taken to the University Marine Laboratory on Appledore Island, one of the Isles of Shoals which were discovered by Champlain in 1605. Within a few hours' drive of Durham to the northwest are hundreds of beautiful lakes, the largest of which, Lake Winnepesaukee, is noted for its 274 green islands. Beyond are the White Mountains and famous Mt. Washington in the Presidential Range. Durham lies peacefully in a gently rolling country, much of which is wooded. Great Bay, an almost completely land-locked tidal basin, is only a few miles distant and tide-water, backing up a stream, reaches the border of the town.

THE UNIVERSITY OF NEW HAMPSHIRE

In 1856, Benjamin Thompson, a farmer of Durham, left all his property to the people of New Hampshire to establish a college of agriculture on the land he had owned. The university began as a department of Dartmouth College in 1866, only nine years after the dedication of the Michigan Agricultural College (now Michigan State College of Agriculture and Applied Science), the first college of agriculture to be established in the United States. The University of New Hampshire was removed from Hanover to its present site at Durham in 1891. It has been expanded until it now consists of the College of Agriculture, the College of Liberal Arts, the College of Technology, and their numerous departments, and the Graduate School. It has a faculty of nearly 200 of the grade of instructor and higher and more than 2,000 regularly enrolled students.

As a part of its celebration the university has organized a ten-day series of programs for the period June 17 to June 26 on "The Welfare of New Hampshire." The programs for the first four days are on the following general subjects, all pertaining especially to New Hampshire: "The Home," "The Nearby Community," "The Larger Community—the State," "Our Social Controls," and "Labor and Industrial Relations." Beginning with Monday, June 23, the program of the

university will run concurrently with that of the association.

The title for the program for Monday, June 23, is "Our Underlying Resources." The morning session will consist of papers on "New Hampshire Surveys its Natural Resources"; the afternoon session, a paper on "Economic Aspects of Conservation."

The title of the program for June 24 is "Our Productive Network." The morning session will be devoted to addresses on "What Is Happening in New England Industry"; the afternoon session to papers on "This Business of Transportation."

The programs of the university will be continued on Thursday, June 26, in morning and afternoon sessions on "The Next Quarter Century." In the evening there will be music for members of the association and other guests of the university.

HEADQUARTERS AND HOTELS

Headquarters of the meeting will be in New Hampshire Hall, where mail and telegrams (Western Union) should be sent to reach persons attending the meeting. The press service will also be in New Hampshire Hall. All general sessions and sessions of sections and societies for the presentation of papers will be held in the university buildings which have an abundance of rooms conveniently near one another.

The university has several dormitories on the campus in which accommodations will be provided at \$1 per person per night. One of the new dormitories will be set aside for the accommodation of members accompanied by their families. There are, in addition, several modern and attractive fraternity and sorority houses in which rooms may be obtained at the same rates as in the dormitories. Persons desiring to arrange for rooms in the dormitories or in the fraternity or sorority houses should write for them to Mr. R. C. Magrath, treasurer of the university.

Although there are no hotels in Durham itself, there are many within half an hour's ride by automobile or bus in neighboring towns, most of which are on the coast. Information about these hotels can also be obtained from Mr. Magrath either by mail in advance of the meeting or upon arrival in Durham.

SCIENTIFIC PROGRAMS, EXCURSIONS AND DINNERS

Section on Mathematics (June 26, 27) will hold sessions on Thursday afternoon and Friday morning at which papers will be presented by Norbert Wiener and Aurel Wintner, Deane Montgomery, Garrett Birkhoff and Daniel C. Lewis, Jr., with a discussion by George D. Birkhoff.

American Meteorological Society (June 26–28) will hold a two-session program on Wednesday afternoon and Thursday morning for the presentation of papers

and will conduct an excursion to the Mt. Washington Observatory on Friday and Saturday under the leadership of C. F. Brooks, A. E. Bent and D. L. Arenberg.

Section on Geology and Geography and the Geological Society of America (June 23-28) will hold a joint session on Monday afternoon for the presentation of papers on "Bed-Rock Geology of Northern New England," a second joint session on Tuesday morning for the presentation of papers on "Recent Glacial Research in New England," and a third joint session on Tuesday afternoon for the presentation of papers pertaining to the geography of New England. Four days of field excursions will follow the indoor meetings. On June 25 a one-day itinerary will include the principal points of geologic and geographic interest in the vicinity of Durham.

On June 26, 27, 28 there will be a three-day excursion into the White Mountain region under the general leadership of Marland P. Billings. One day will be devoted to the Lake Winnepesaukee area, with Richard P. Goldthwait and Alonzo Quinn as assistant leaders. The newly described and spectacular Mt. Washington area will be examined on the second day. The final day will include a trip across the Mascoma and Cardigan quadrangles conducted by Dr. Katharine Fowler-Billings. As an introduction and orientation to the three-day excursion Professor Billings will present a paper, "Bedrock Geology of New Hampshire," at the first session on Monday afternoon.

Members and guests planning to participate in the long excursion should communicate with Dr. George H. White, University of New Hampshire, before June 16, since over-night accommodations away from Durham must be secured.

The American Association of Economic Entomologists (June 25, 26) will present in four sessions a comprehensive symposium on "Laboratory Procedure in Studies of the Chemical Control of Insects."

The program is as follows:

1. Introduction. W. C. O'Kane, University of New Hampshire.

SECTION I—REARING TEST INSECTS

2. Plant Feeding Insects. Leader, H. A. Waters, Ohio State University.
3. Stored Product Insects. Leader, N. H. Shepard, University Farm, St. Paul, Minn.
4. Insects Affecting Man and Animals. Leader, F. L. Campbell, Ohio State University.

SECTION II—LABORATORY TEST METHODS

5. Stomach Insecticides. Leader, Roy Hansberry, Cornell University.
6. Contact Insecticides, Including Ovicides. Leader, C. H. Richardson, Iowa State College.
7. Fumigants. Leader, R. T. Cotton, U. S. Bureau of Entomology and Plant Quarantine, Manhattan, Kans.

8. Aerosols (smoke). Leaders, L. D. Goodhue and W. N. Sullivan, U. S. Bureau of Entomology and Plant Quarantine, Beltsville, Md.
9. Fabric Protectors (mothproofing agents). Leader, F. W. Fletcher, Dow Chemical Company, Midland, Mich.
10. Attractants and Repellants. Leader, V. G. Dethier, John Carroll University, Cleveland, Ohio.
11. Termite Soil Poisons. Leader, W. E. McCauley, Natural History Survey Division, Urbana, Ill.

The Botanical Society of America (June 24-27), in keeping with the season, has planned a vacation program rather than merely a series of sessions for listening to formal papers.

In cooperation with other societies a series of interesting field trips has been arranged, beginning on June 21 at Mt. Monadnock and including a trip to the summit of Mt. Washington on June 26. A trip through Maine, led by F. H. Steinmetz, will begin on June 28 and end on July 4 at Mt. Desert Island. A detailed program and itinerary may be secured by addressing Dr. John A. Small, New Jersey College for Women, New Brunswick, N. J. It is expected also that visits to botanical laboratories in the New England States will be arranged, immediately preceding and following the sessions in Durham. A round-table discussion of the "New England Flora" will be held on Tuesday evening in Durham. A dinner for all botanists is arranged for Wednesday evening. This will be followed by two talks, one on the New England flora and another on a topic of special interest to the physiologists. The physiological section of the society will join the American Society of Plant Physiologists in several sessions.

The American Phytopathological Society (June 24-27) will hold sessions jointly with its New England Division from Tuesday to Friday, inclusive. The session will start at 10:00 A.M. at the F. A. Bartlett Tree Research Laboratories and arboretum in Stamford, Conn., where modern methods and tools used in the care of trees will be demonstrated. After a clambake given by the Bartlett Tree Expert Company the members will motor to New Haven to make a tour of the laboratories of Yale University and to examine the extensive collections of tree diseases and the facilities for research on forest pathology exhibited by the Office of Forest Pathology, U. S. Department of Agriculture. In the evening the Connecticut Agricultural Experiment Station will open to visitors its new greenhouses with their gadgets for ventilation and temperature control, and will exhibit the G. P. Clinton herbarium, precision apparatus for research on fungicidal sprays and dusts and the phenomenon of sedimentation and fractionation of dust clouds.

Wednesday morning will be spent at the Experiment Station Farm at Mt. Carmel, where the results with

several new organic fungicides will be displayed and chemotherapy for the control of Dutch elm disease will be demonstrated. Chestnut trees bred for blight resistance will be exhibited. After a picnic lunch at Sleeping Giant State Park the group will motor to the Tobacco Substation at Windsor, where possibly downy mildew, brown-root rot and mosaic of tobacco may be seen. The early evening will be devoted to technical papers followed by a smoker at their conclusion. Thursday will begin with a tour of a typical "shade" tobacco farm and curing sheds, after which the party will proceed to Waltham (Mass.) Field Station to inspect the results of researches on the control of greenhouses and field vegetable, flower and small fruit diseases. Thence the phytopathologists will travel on to Durham to join in the association programs and to attend the evening concert as guests of the University of New Hampshire. See the program of the Torrey Botanical Club below for details of other excursions.

The American Society of Plant Physiologists (June 25, 26) will join with its New England Section and the Physiological Section of the Botanical Society of America in sessions for the presentation of papers on Wednesday afternoon and Thursday morning. On Thursday afternoon they will hold a joint session with the American Society for Horticultural Science. The plant physiologists will participate in the dinner for all botanists on Wednesday evening.

The Torrey Botanical Club (June 22-July 4) will begin its two-weeks' series of field trips at 8:30 A.M. on Sunday, July 22, from Jaffrey, N. H., for an ascent of Mt. Monadnock, under the guidance of H. I. Baldwin of the Forestry and Recreation Department of New Hampshire. In the afternoon members of the club will visit the Caroline A. Fox Research and Demonstration Forest at Hillsboro. On Monday the club will join with the Ecological Society of America, the American Fern Society, the American Society of Plant Taxonomists, in an excursion to Spruce Hole and Cedar Swamp, under the leadership of C. F. Jackson and Albion Hodgdon, of the University of New Hampshire. On Tuesday the same societies will join in a study of York County flora; and on Wednesday in field trips to Nippo Pond and the White Mountains. On Thursday the societies will ascend Mt. Washington. On Friday explorations of the Mt. Washington region will be continued. Beginning on Saturday, June 28, the societies will transfer their activities to Maine and continue until Friday, July 4, visiting Greenville, a Maine woods sporting camp, Mt. Katahdin, Calais or Eastport, the raised bogs and coast vegetation of Washington County, Mt. Desert Island and Acadia National Park. The Maine tour will be taken with the assistance of F. N. Steinmetz and his

colleagues of the University of Maine. All trips will require registration in advance with Dr. H. I. Baldwin, Dr. C. F. Jackson, Dr. J. A. Small or at the association registration desk in New Hampshire Hall.

The American Fern Society, the *American Society of Plant Taxonomists* and the *Sullivant Moss Society* will participate in the field trips outlined under the program of the Torrey Botanical Society above.

The New England Botanical Club (June 26, 27) will conduct a field collecting trip in Merrimac County and the western part of Strafford County, N. H., on which members of other botanical clubs will be welcome.

The Ecological Society of America (June 23-26), in addition to participating in the excursions outlined under the program of the Torrey Botanical Club above, will hold a symposium on Mt. Washington ecology at the Alpine Gardens under the leadership of Robert F. Griggs of George Washington University. The participants in the symposium will be Charles F. Brooks, Richard P. Goldthwait, Stuart K. Harris, A. J. Grant, Charles F. Jackson, Maurice Provost, C. P. Alexander and H. B. Washburn.

The Section on the Social and Economic Sciences (June 24-26) will hold six sessions for the presentation of papers and will join with the American Society of Agronomy in a banquet on Thursday evening at which "Soil Conservation in the Northeast" will be discussed. The subject of the two sessions to be held on Tuesday is "The Second Colonization of New England," the morning session under the chairmanship of C. C. Zimmerman and the afternoon session under the chairmanship of A. M. Myrman. The subject of the Wednesday morning session is "Ecological and Demographic Aspects of the New England Area," which will be under the chairmanship of George A. Lundberg. In the afternoon the subject will be "Social Organization and Public Policy," Charles W. Coulter, chairman. The subjects for the two Thursday sessions are "Typical Problems of the New England Area: People and Resources" and "Social Welfare in New England," Charles W. Coulter presiding at the former and George A. Lundberg at the latter. On Thursday evening the section will join with the Northeastern Section of the American Society of Agronomy in a banquet at which H. H. Bennett will speak on "Soil Conservation in the Northeast."

The Section on Medical Sciences (June 24) will hold two sessions on Tuesday at which 17 papers on subjects of general interest in medical science will be presented. They are on such diverse subjects as "The Influence of Glucose on the Absorption and Toxicity of Sulfapyridine," "The Effect of Cystine on Human Milk Production," the "Germicidal Efficacy of Quaternary Ammonium-type Compounds," "Cerebrospinal

Fluid Circulation and the Hearing," "The Hormonal Origin of Heart Damage and Heart Failure," and "Anomalies of the Respiratory System." The staff of the University of Vermont College of Medicine is well represented on the program.

The American Dietetic Association (June 26) will hold two sessions on Thursday for the presentation of papers and a luncheon on Thursday noon. The general theme for the first session is "Children Should Be Well Nourished," and for the second it is "Nutrition and National Defense." May E. Foley, of the Massachusetts Nutrition Defense Council, will preside at the first session and Dorothy Duckles, nutritionist of the Boston Community Health Association, will preside at the second. Gladys E. Hall, educational director of the American Dietetic Association, will speak at the luncheon.

The American Psychiatric Association (June 26) will present a symposium of five papers on "The Psychiatric Aspects of Civilian Morale" under the chairmanship of Arthur H. Ruggles, superintendent of Butler Hospital, Providence, R. I.

The American Society of Agronomy, Northeastern Section (June 25-27) will hold a Grassland Conference in three sessions on Wednesday at which 17 papers will be presented on various aspects of the subject. On Thursday members of the society will visit the New Hampshire Agricultural Experiment Station at Durham, and outlying farms on Friday. The society will join with the Section on the Social and Economic Sciences in a banquet on Thursday evening at which H. H. Bennett will deliver an address on "Soil Conservation in the Northeast."

The Society of American Foresters (June 24-26) will hold two sessions on Tuesday, each consisting of

two sections, and two sessions on Wednesday for the presentation of scientific papers. The subject of Section I of the first session is "Forest Insects and Diseases" which will be discussed in six papers. Section II of the first session will consist of five papers on "Forest Fire Control." The chairmen of these sessions in the order they have been listed are H. B. Peirson, Austin H. Wilkins, Perley Spaulding and Harris A. Reynolds. On Wednesday the society will hold two sessions, the first under the chairmanship of Clifford Graham. A total of 27 papers will be presented. On Tuesday evening the society will have a Forester's Outdoor Lobster Dinner (stag) at the Green Gate, in Exeter. At 5 P.M. on Wednesday the members will leave Durham by motor to visit the State Bath House at Hampton Beach. In the evening members of the society will have a shore dinner (ladies invited) in the Ashworth Hotel in Hampton Beach, at which Henry Schmitz, editor-in-chief of the *Journal of Forestry*, will deliver an address. On Thursday the members of the society will make an all-day excursion by automobile to the Pawtuckaway Reservation, the Manchester Water Works Forest (in which a buffet luncheon will be served) and the Bear Brook Recreational Area, at which the trip will terminate, with bathing and picnic supper for those who desire them. Explanatory addresses and demonstrations will be given at all the principal points visited.

The Horticulturists of New England and Eastern Canada will hold a meeting at Durham on June 26 and 27, partly in connection with the American Society of Plant Physiologists. The society will hold a dinner on Tuesday evening and a program on "Hardy Body Stocks for Apple Trees," under the chairmanship of J. H. Waring, of the University of Maine.

THE AMERICAN PHILOSOPHICAL SOCIETY. II

ABSTRACTS OF PAPERS PRESENTED AT THE PHILADELPHIA MEETING

(Continued from p. 466)

By Professor EDWIN G. CONKLIN

VICE-PRESIDENT AND EXECUTIVE OFFICER; PROFESSOR EMERITUS OF BIOLOGY,
PRINCETON UNIVERSITY

Mental abilities: EDWARD L. THORNDIKE. Psychology once held the view that attention, memory, imagination, reasoning and the like were general faculties or powers of the mind. But experimentation showed (1) that the improvement of an ability by training was specific, not general, and (2) that the correlations between different manifestations of an ability were far from perfect. A mental ability is, as an observed fact, only a probability that certain tasks can be achieved by the possessor of the ability. The meter or test by which psychology measures an ability is usually a selected set of tasks, a sort of

inventory by sampling. The scores computed from most of such inventories are best expressed by arranging the tasks in progressive levels of difficulty and stating the percentage of success at each level, or, more conveniently, the level of difficulty at which the person achieves some specified percentage of successes. Psychology seeks to attain adequacy and purity in its measures of an ability; that is, to measure all of it and nothing but it. Purity is especially hard to attain, because abilities are as a rule affiliated, so that the test or meter for any one gives a score that is contaminated, so to speak, by the influence